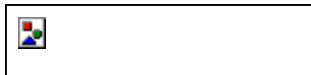


US EPA ARCHIVE DOCUMENT

# *King County Water Quality Trouble Call Program*

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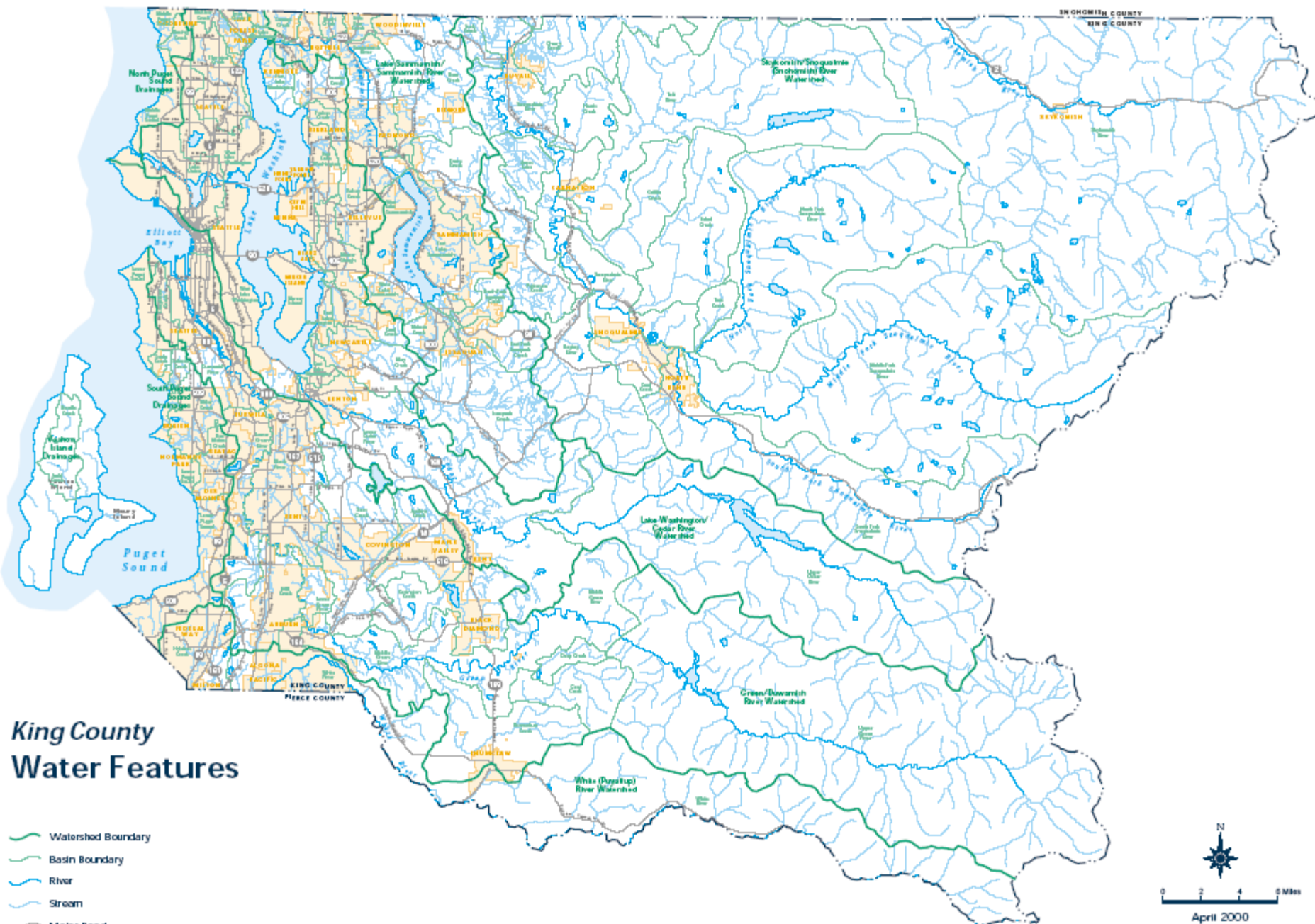


Pictures **NOW!**

# King County facts

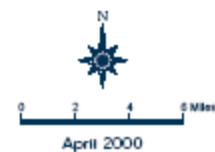
- 39 incorporated cities
- 12<sup>th</sup> most populated county in the U.S.
- Population of 1.7 million
- 2,131 square miles of land
- 760 lakes and reservoirs
- 3,000 miles of streams
- 975 wetlands
- 4 major river systems (Snoqualmie/Cedar/Green/ White)
- 800,000 acres of forestlands
- 34.1 inches average annual precipitation

Source: King County DNRP Annual Report 2003



## King County Water Features

- Watershed Boundary
- Basin Boundary
- River
- Stream
- Major Road
- Lake
- Incorporated Area



Produced by: GIS & Visual Communications Unit,  
Department of Natural Resources  
File Name: 00040WATERfeatures WS



# Trouble Call Mission

- Respond to, investigate, and cooperate with multiple agencies on surface water quality issues and environmental emergencies in King County.



# King County Resources

## Field staff

- Wastewater
- Solid waste
- Parks
- Roads

## Vessels (5)

- From 14' whaler to 48' research vessel

## Laboratory

- Wide-range of expertise
- Fast turn-around-times

## Response Vehicle

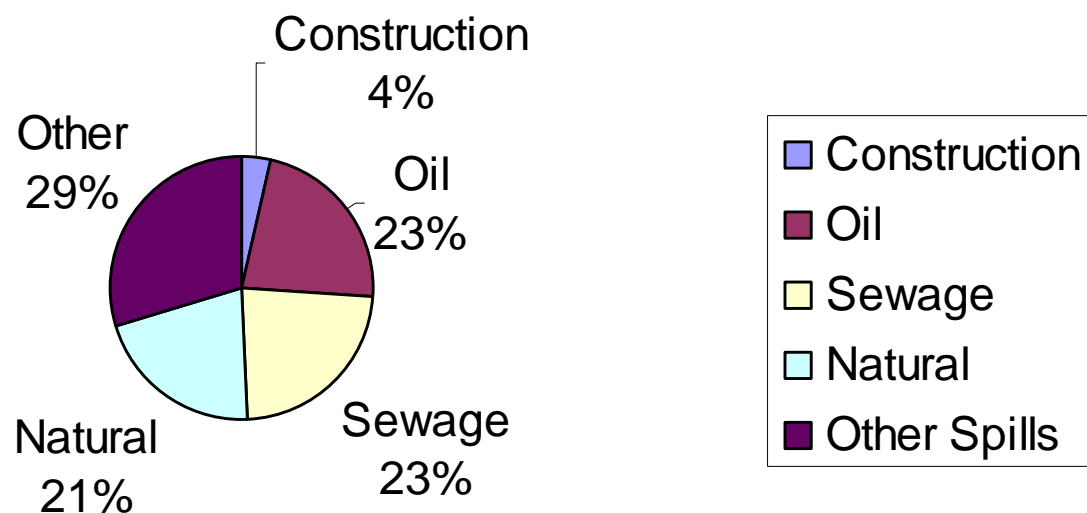
- Laptop w/ ArcGIS
- Sampling equipment
- Digital camera/GPS unit
- Booms/pads for spill containment



# Trouble Call Data for 2005

- 117 Incidents
- Field investigated more than 79 incidents
- Collected 56 water quality samples
- KC Environmental Lab analyzed over 500 parameters

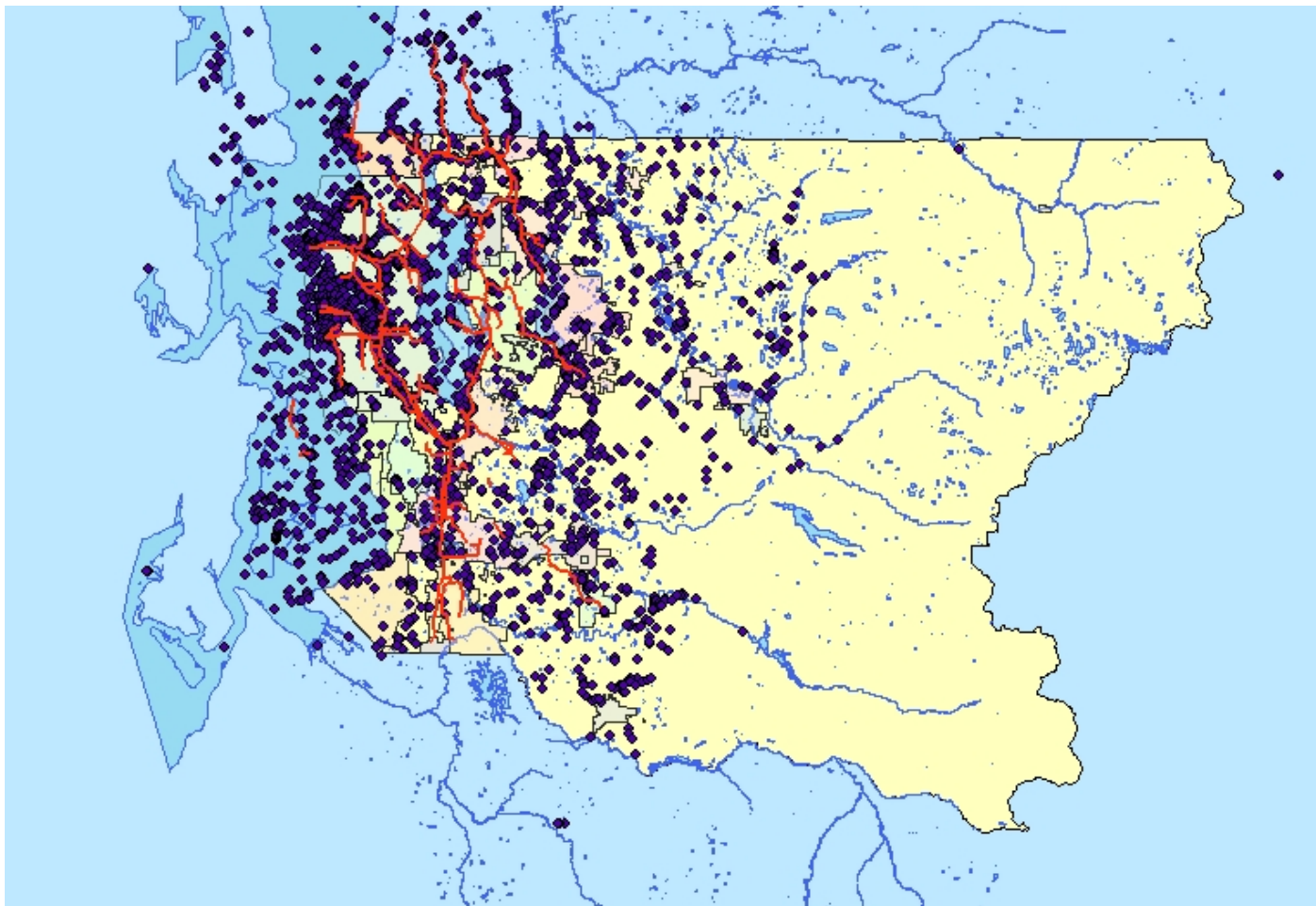
## 2005 Incidents





# **How we assist other agencies**

How we assist other agencies:



- We monitor many areas of King County

## How we assist other agencies:



- We provide public agencies with Trouble Call sample kits
  - Agencies get training
    - Collect a quick, one time water quality sample
    - No cost for analysis



## How we assist other agencies:



- Mutual-aid responder when notified of spills
  - Washington State Department of Ecology



# Collaborating Agencies

- King County:
  - Public Health-Seattle/King County
  - DDES
  - Roads
- State of Washington:
  - Agriculture
  - Ecology
  - Fish and Wildlife
  - DNR
  - DOT
- Water and Sewer Districts
- EPA
- NOAA
- United States Coast Guard
- University of Washington
- Cities:
  - Seattle
  - Bothell
  - Black Diamond
  - Kenmore
  - Shoreline
  - Lake Forest Park
  - Federal Way
  - Bellevue
  - Kent
  - Kirkland
  - Woodinville
  - Renton
  - Tukwila
  - Des Moines

# Trouble Call Responds to

- **Wastewater incidents**
- **Natural events**
- **Illegal dumping**
- **Unusual emergencies**
- **Oil Spills**

# Wastewater Incidents



- Respond to:
  - Spills along the King County conveyance system
- Collect/analyze water samples
  - bacteria and nutrients
- Appropriate contacts:
  - Public Health
  - Local Jurisdictions
- Post signs
- Provide ongoing water quality monitoring of surface waters



**Combined Sewer Overflow after a rain event**





36" sewer line break

# Natural Phenomena



- Orange plankton in West Seattle
  - Noctiluca
- Fishkill-Lake Washington
  - Three-spine Sticklebacks
- Foam on Lake Washington
  - Phytoplankton decomposition and the release of algin
- Odor complaints along Alki Beach
  - Ulva (sea lettuce) seaweed





Natural bio-sheen





Algae identified as  
*Botryococcus*





**“Nuisance” algae**





Iron bacteria





Phantom midges on  
Sammamish Slough





# Illegal Dumping

- Attempt to identify the Responsible Party
  - Immediate cleanup
- Photo documentation
- Collect water quality samples
  - Identify unknowns
  - Quantitative analysis
  - Toxicity testing
- Enforcement action
  - Local jurisdiction





**Restaurant grease discharged from pipe**









**Shadow Lake –sinking of boat resulting in oil spill**

# Unusual Emergencies



- Herbicide application
- Fish kills
- Construction activities
  - de-watering
  - erosion/sediment control
- Odor complaints
- Toxic algal blooms
- Fire responses near surface waters
- Frogs in lake
- WNV-crows









Small tug sunk on Lake Washington Ship Canal





Marina fire in Portage Bay





**Tire fire near the Green River**





A fireball explodes this morning during a spectacular blaze at a chemical distribution center in Kent.

Jimi Lott © The Seattle Times



**Chemical warehouse fire: runoff of chemicals and fire-fighting foam to Springbrook Creek**

# Oil Spills



- Assist lead jurisdiction during incident response
- Monitor surface waters
  - Boats
  - Staff
  - Lab services
- Monitor wastewater system
- Utilize our supply of booms and pads





**Residential oil tank punctured, resulting in spill to basement sump-discharge to lake.**





Leaking UST discharging heating oil to Puget Sound





**7,000 gallon diesel spill from flood control facility**





Heating oil in creek from UST-City of Tukwila





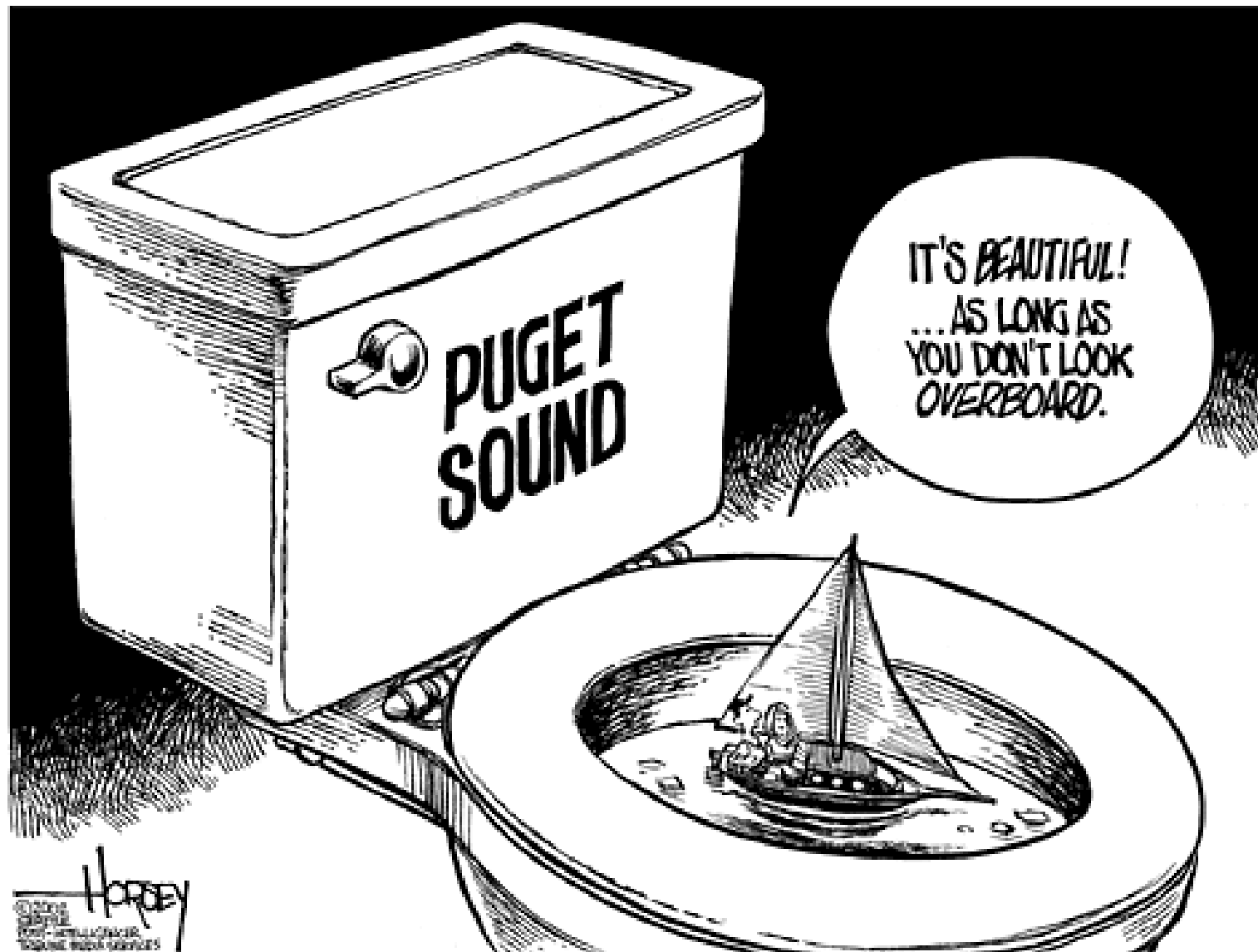
Dept of Ecology

**Point Wells Oil Spill-4800 gallons**



# Future Challenges

- Gov. Gregoire established the “Puget Sound Partnership”
  - preserve Puget Sound by 2020 with critical spill response resources
- Streamline notifications for spills
- Continue to improve relationships with local agencies
  - Jurisdictional boundaries
  - Communications
  - Resource sharing
  - Welcome locals within the ICS



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*“Alone we can do so little; together we can do so much”-Helen Keller*

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